

**What is claimed is:**

- 1 1. A hollow core composite assembly, comprising:  
2 a hollow core base including at least one open core surface; and  
3 at least one solid film applied to said at least one open core  
4 surface.
- 1 2. A hollow core composite assembly as described in claim  
2 1, further comprising:  
3 at least one adhesive layer positioned between said at least one  
4 solid film and said at least one open core surface.
- 1 3. A hollow core composite assembly as described in claim  
2 2, further comprising:  
3 at least one dry face ply laid up dry and placed on said at least  
4 one solid film; and  
5 a liquid resin applied to said at least one dry face ply and then  
6 cured.
- 1 4. A hollow core composite assembly as described in claim  
2 3, wherein said at least one dry face ply includes a plurality of dry face plies.
- 1 5. A hollow core composite assembly as described in claim  
2 1, wherein said hollow core base is a honeycomb core.
- 1 6. A hollow core composite assembly as described in claim  
2 1, wherein said liquid resin is applied to said at least one dry face ply using  
3 resin transfer molding.
- 1 7. A hollow core composite assembly as described in claim  
2 1, wherein said liquid resin is applied to said at least one dry face ply using  
3 vacuum assisted resin transfer molding.

1 8. A hollow core composite assembly as described in claim  
2 1, wherein said liquid resin is applied to said at least one dry face ply using  
3 vacuum-assisted-resin-infusion.

1 9. A hollow core composite assembly as described in claim  
2 1, wherein said at least one adhesive layer is an uncured adhesive film.

1 10. A hollow core composite assembly, comprising:  
2 a hollow core base including at least one open core surface;  
3 at least one solid film applied to said at least one open core  
4 surface; and  
5 at least one adhesive layer positioned between said at least one  
6 solid film and said at least one open core surface.

1 11. A hollow core composite assembly as described in claim  
2 10, further comprising:  
3 at least one dry face ply laid up dry and placed on said at least  
4 one solid film; and  
5 a liquid resin applied to said at least one dry face ply and then  
6 cured.

1 12. A hollow core composite assembly as described in claim  
2 11, wherein said at least one dry face ply includes a plurality of dry face plies.  
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1 13. A hollow core composite assembly as described in claim  
2 11, wherein said hollow core base is a honeycomb core.

1 14. A hollow core composite assembly as described in claim  
2 11, wherein said liquid resin is applied to said plurality of dry face plies using  
3 resin transfer molding.

1 15. A hollow core composite assembly as described in claim  
2 11, wherein said liquid resin is applied to said plurality of dry face plies using  
3 vacuum-assisted-resin-transfer-molding.

1 16. A hollow core composite assembly as described in claim 11,  
2 wherein said at least one adhesive layer is an uncured adhesive film.

1 17. A method of producing a hollow core composite  
2 assembly comprising:  
3 applying a film adhesive to an open core surface of a hollow core  
4 base; and  
5 applying a solid film to said open core surface.

1 18. A method of producing a hollow core composite  
2 assembly as described in claim 17, further comprising:  
3 laying up dry at least one dry face ply on top of the solid film;  
4 applying liquid resin to said at least one dry face ply; and  
5 curing the hollow core composite assembly.

1 19. A method of producing a hollow core composite  
2 assembly as described in claim 18, further comprising:  
3 curing said solid film to said open core surface by said applying  
4 liquid resin.

1 20. A method of producing a hollow core composite  
2 assembly as described in claim 18 further comprising:  
3 pre-curing said solid film to said open core surface.

1 21. A method of producing a hollow core composite  
2 assembly as described in claim 17, wherein said applying liquid resin is  
3 accomplished utilizing a resin transfer molding process.

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22. A method of producing a hollow core composite assembly as described in claim 17, wherein said applying liquid resin is accomplished utilizing a vacuum-assisted resin-transfer molding process.

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